LIN Consulting

APPENDIX A: Consultations

.

Pre-Planning Assessment Report

Lincs Gateway

InFlow Reference: PPE-0170849

Assessment Type: Water & Used Water

Report published: 28/02/2023

Thank you for submitting a pre-planning enquiry.

This has been produced for LIN Consulting.

Your reference number is **PPE-0170849**.

This report can be submitted as a drainage strategy for the development should it seek planning permission.

If you have any questions upon receipt of this report, you can submit a further question via InFlow. Alternatively, please contact the Planning & Capacity team on **07929 786 955** or email planningliaison@anglianwater.co.uk

---

Section 1 - Proposed development

The response within this report has been based on the following information which was submitted as part of your application:

List of planned developments	
Type of development	**No. Of units**
Storage or distribution	2

The anticipated residential build rate is:

Year	Y1
Build rate	2

Development type: Greenfield

Planning application status: Unknown

Site grid reference number: TF2455820004

The comments contained within this report relate to the public water mains and sewers indicated on our records.

Your attention is drawn to the disclaimer in the useful information section of this report.

Section 2 - Assets affected

Our records indicate that we have the following types of assets within or overlapping the boundary of your development site as listed in the table below.

Additionally, it is highly recommended that you carry out a thorough investigation of your proposed working area to establish whether any unmapped public or private sewers and lateral drains are in existence. We are unable to permit development either over or within the easement strip without our prior consent. The extent of the easement is provided in the table below. Please be aware that the existing water mains/public sewers should be located in highway or open space and not in private gardens. This is to ensure available access for any future maintenance and repair and this should be taken into consideration when planning your site layout.

Water and Used water easement information		
Asset type	Pipe size (mm)	Total easement required (m)
Water mains	77	4.50 m overall easement
Water mains	26	4.50 m overall easement

If it is not possible to avoid our assets then these may need to be diverted in accordance with Section 185 of the Water Industry Act (1991). You will need to make a formal application if you would like a diversion to be considered.

Due to the private sewer transfer in October 2011 many newly adopted public used water assets and their history are not indicated on our records. You also need to be aware that your development site may contain private water mains, drains or other assets not shown on our records. These are private assets and not the responsibility of Anglian Water but that of the landowner.

Section 3 - Water supply

In examining the available capacity for your development site we assess the capacity and costs for two categories of water main. These are:

Strategic

These are the offsite potable water mains which deliver water within an area to a large number of development sites often across a number of towns. The strategic provision of these water mains enables us to provide of the cheapest solution across a large geographical area.

Local reinforcement

These are localised reinforcement mains to enable us to provide water to your development site. On most sites we also have two categories of water mains the Spine Mains and Housing Estate Mains (HEMs).

To support your budgeting arrangements we have also examined the estimated cost for delivering the onsite water mains neededfor a site of your size.

Water Supply Network Capacity

The water supply to the proposed development site can be provided from the existing mains. Anglian Water cannot reserve capacity and therefore you are recommended to formally apply for a connection at your earliest convenience.

Please note that available capacity in our network can be reduced at any time due to increased requirements from existing businesses and houses as well as from new housing and new commercial developments.

It is recommended that you apply for a formal mains connection at the earliest opportunity to allow us to design and plan the delivery of your connection work. Additionally, please note that where offsite reinforcement work has been identified, it could take up to 18 months to complete the necessary offsite reinforcement depending on the level of complexity.

Connection point(s)

Connection Point	Address	National Grid Reference (NGR)
CP-9649	B1173	TF2433319813

Budget Water Costs

The costs provided in this report are based on the current information available. These costs are provided as an indicative estimate to help inform you on a budget for supplying water to your site.

Your development site will be required to pay an **infrastructure charge** for each new property connecting to the public water network that benefits from Full planning permission. The infrastructure charge replaces the zonal charge as previously identified.

You will be required to pay an infrastructure charge upon connection for each new plot on your development site. The infrastructure charge are types of charges set out in Section 146(2) of the Water Industry Act 1991

The charge should be paid by anyone who wishes to build or develop a property and is payable upon request of connection.

• The Infrastructure Charge is based on the cost of any reinforcement and upgrades to our existing network("Network Reinforcements"), whether designed to address strategic or local capacity issues.

• For moreinformation on our Infrastructure Charge, please see the 'Useful Information' section of this report.

• The Site-Specific costs are calculated at a 100% contribution on any new infrastructure that is required to be built to connect the development site to our existing network. This includes new infrastructure from (and including) the point of connection to our network. The development will receive an income offset in accordance with our 22-23 Developer Charging Arrangements on any new domestic or non-household domestic connection made to our network and applied to the water infrastructure charge as a plot connects.

Based on these budgetary costs, the cost to provide onsite water mains have been examined for your household properties and the estimated cost for delivering the onsite water mains needed for a site of your size is below:

Onsite water main	Number of units	Estimated cost
Estimated cost of onsite main delivery	0	To be confirmed during the connection application stage

Water Infrastructure Charge

Infrastructure charges are raised on a standard basis of one charge per new connection (one for water and one for sewerage). However, if the new connection is to non-household premises, the infrastructure charges is calculated according to the number and type of water fittings in the premises. This is called the "relevant multiplier" method of calculating the charge. Details of the relevant multiplier for each fitting can be found at our website.

Our 22/23 Developer Charging Arrangements includes an income offset discount on new domestic connections made to our network and is applied when the plot connects to the water network.

The associated water infrastructure charge for household plot connections and income offset discount has been provided below.

The Water Infrastructure charge for your dwellings is:

Infrastructure charge	Number of units	Total
£ 293	0	To be confirmed during the connection application stage

The infrastructure discount for your dwellings is:

Infrastructure discount	Number of units	Total
-£ 420	0	To be confirmed during the connection application stage

A detailed cost breakdown will be provided on receipt of a formal application for a new water main.

Alternatively, you may wish to have the onsite main delivered by a Self-lay Provider under terms set out in a self-lay agreement. For more information on water mains and self-lay of water mains, please visit our website.

Please note that you should also budget for infrastructure charges on non-household premises where applicable and these will be calculated according to the number and type of water fittings in the premises. This is called the "relevant multiplier" method of calculating the charge and the relevant multiplier will be applied to the figures set out in our 2022-23 Developer Charging Arrangements to arrive at the amount payable. Details of the relevant multiplier for each fitting can be found on our website.

Section 4 - Water recycling services

In examining the used water system we assess the ability for your site to connect to the public sewerage network without causing a detriment to the operation of the system. We also assess the receiving water recycling centre and determine whether the water recycling centre can cope with the increased flow and effluent quality arising from your development.

Water recycling centre

The foul drainage from the proposed development is in the catchment of Spalding Water Recycling Centre, which currently does have not capacity to treat the flows from your development site.

Anglian Water are obligated to accept the foul flows from your development with the benefit of planning consent and would therefore take the necessary steps to ensure that there is sufficient treatment capacity should the planning authority grant planning permission.

Used water network

Our assessment has been based on development flows connecting to the nearest foul water sewer of the same size or greater pipe diameter to that required to drain the site. The infrastructure to convey foul water flows to the receiving sewerage network is assumed to be the responsibility of the developer. Conveyance to the connection point is considered as Onsite Work and includes all work carried out upstream from of the point of connection, including making the connection to our existing network. This connection point has been determined in reference to the calculated discharge flow and on this basis, a 150mm internal diameter pipe is required to drain the development site. The nearest practicable connection is to the 150mm diameter sewer at manhole 2100 in Fen End Lane at National Grid Reference NGR TF2429920144. The cover level is 3.61 and the invert level is 1.88. Anglian Water has assessed the impact of a pumped conveyance from the planned development to the public foul sewerage network and we can confirm that this connection is acceptable as the foul sewerage system, at present, has available capacity for your site. In line with Sewers for Adoption, the pumped discharge will need to connect via an intermediate manhole and at least 5 metres of an appropriately sized gravity sewer. The pump rate and configuration of the connection will be determined with your detailed design. You should submit this detail with your Section 106 new connection application. Please note that Anglian Water will request a suitably worded condition at planning application stage to ensure this strategy is implemented to mitigate the risk of flooding.

It is assumed that the developer will provide the necessary infrastructure to convey flows from the site to the network. Consequently, this report does not include any costs for the conveyance of flows.

Surface water disposal

You indicated on the Pre-Planning Application form that a connection to the public surface water sewer network is not required as infiltration and a connection to a watercourse is to be utilised. I also advised by email that there are no public surface water sewers within the vicinity of the proposed development. Therefore Anglian Water would be unable to provide the site with a feasible solution of surface water disposal within the current assets. Alternative methods of surface water disposal will need to be investigated such as infiltration techniques or a discharge to a watercourse in accordance with the surface water management hierarchy as outlined in Building Regulations Part H. The alternative is that a new surface water sewer is constructed which is used to convey your surface water to a watercourse or as part of a SuDs scheme, where appropriate. Subject to the sewer being designed in accordance with the current version of Sewers For Adoption, the sewer can be put forward for adoption by Anglian Water under Section 104 of the Water Industry Act 1991. If the outfall is to a watercourse, the applicant will be required to obtain consent to discharge via the appropriate body. If your site has no means of drainage due to third party land then you may be able to requisition Anglian Water, under Section 98, to provide a connection to the public sewer for domestic drainage purposes. As part of this option, you may wish to enter into a works agreement in accordance with Section 30 of the Anglian Water Authority Act 1977. This will allow you to design and construct the public sewer using Anglian Waters' statutory powers in accordance with Section 159/168 of the Water Industry Act 1991.

As you may be aware, Anglian Water will consider the adoption of SuDs provided that they meet the criteria outline in our SuDs adoption manual. This can be found on our website. We will adopt features located in public open space that are designed and constructed, in conjunction with the Local Authority and Lead Local Flood Authority (LLFA), to the criteria within our SuDs adoption manual. Specifically, developers must be able to demonstrate:

1. Effective upstream source control,
2. Effective exceedance design, and
3. Effective maintenance schedule demonstrating than the assets can be maintained both now and in the future with adequate access.

If you wish to look at the adoption of any SuDs then an expression of interest form can be found on our website

As the proposed method of surface water disposal is not relevant to Anglian Water; we suggest that you contact the relevant Local Authority, Lead Local Flood Authority, the Environment Agency or the Internal Drainage Board, as appropriate.

Trade Effluent

We note that you do not have any trade effluent requirements. Should this be required in the future you will need our written formal consent. This is in accordance with Section 118 of the Water Industry Act (1991).

Used Water Budget Costs

Your development site will be required to pay an Infrastructure charge for each new property connecting to the public water and sewerage network that benefits from Full planning permission. The infrastructure charge replaces the zonal charge as previously identified.

You will be required to pay an infrastructure charge upon connection for each new plot on your development site. The infrastructure charge are types of charges set out in Section 146(2) of the Water Industry Act 1991.

The charge should be paid by anyone who wishes to build or develop a property and is payable upon request of connection.

• The Infrastructure Charge is based on the cost of any reinforcement and upgrades to our existing network ("Network Reinforcements"), whether designed to address strategic or local capacity issues. For more information on our Infrastructure Charge, please see the 'Useful Information' section of this report.

Infrastructure charges are raised on a standard basis of one charge per new connection (one for water and one for sewerage).

The Water Recycling Infrastructure charge for your dwellings is:

Infrastructure charge	Number of units	Total
£ 490	0	To be confirmed during the connection application stage

Please note that you should also budget for infrastructure charges on non-household premises where applicable and these will be calculated according to the number and type of water fittings in the premises. This is called the "relevant multiplier" method of calculating the charge and the relevant multiplier will be applied to the figures set out in our 2022-23 Developer Charging Arrangements to arrive at the amount payable. Details of the relevant multiplier for each fitting can be found on our website.

Section 5 - Map of Proposed Point of Connection(s)

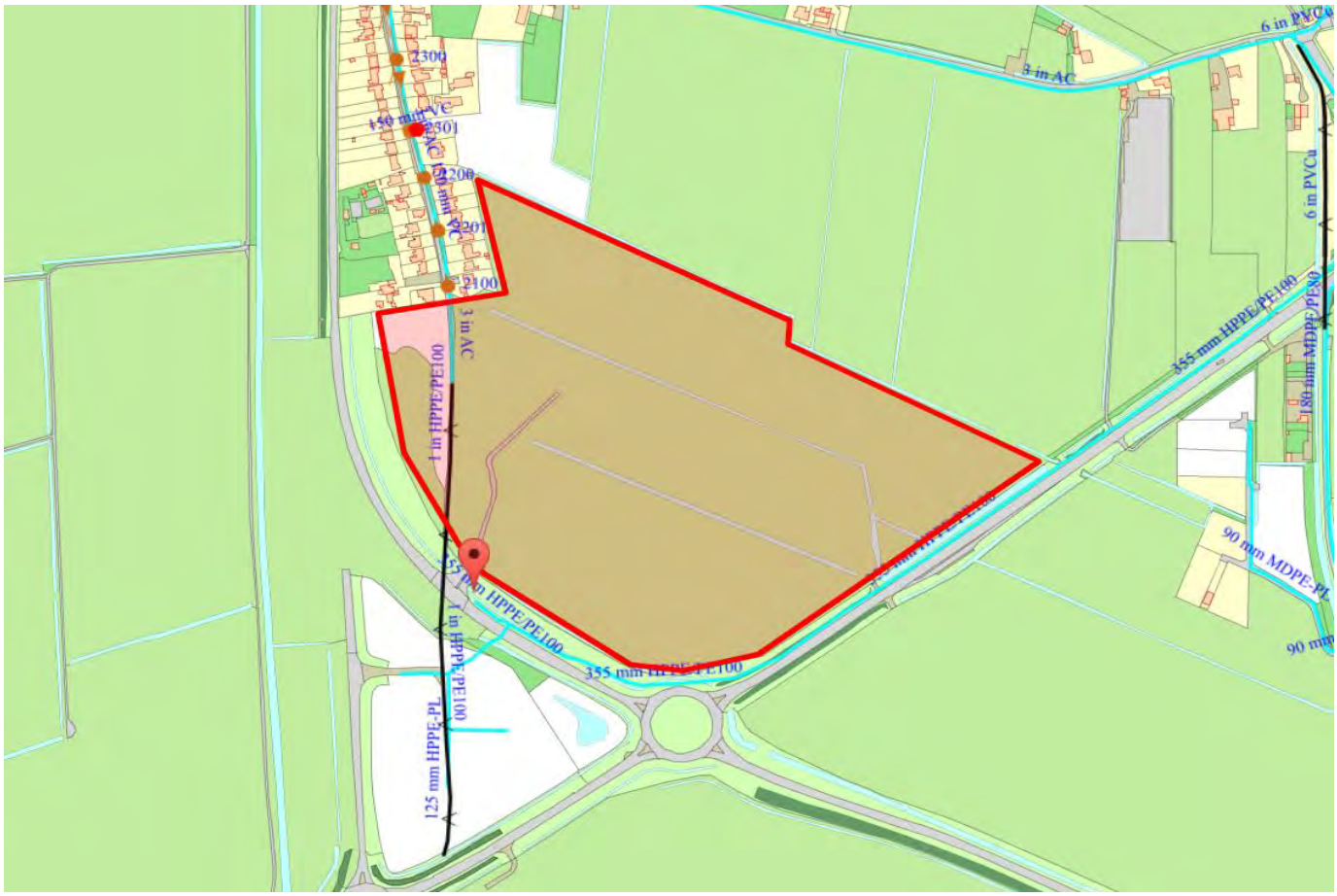


Figure 1: Showing your water point of connection

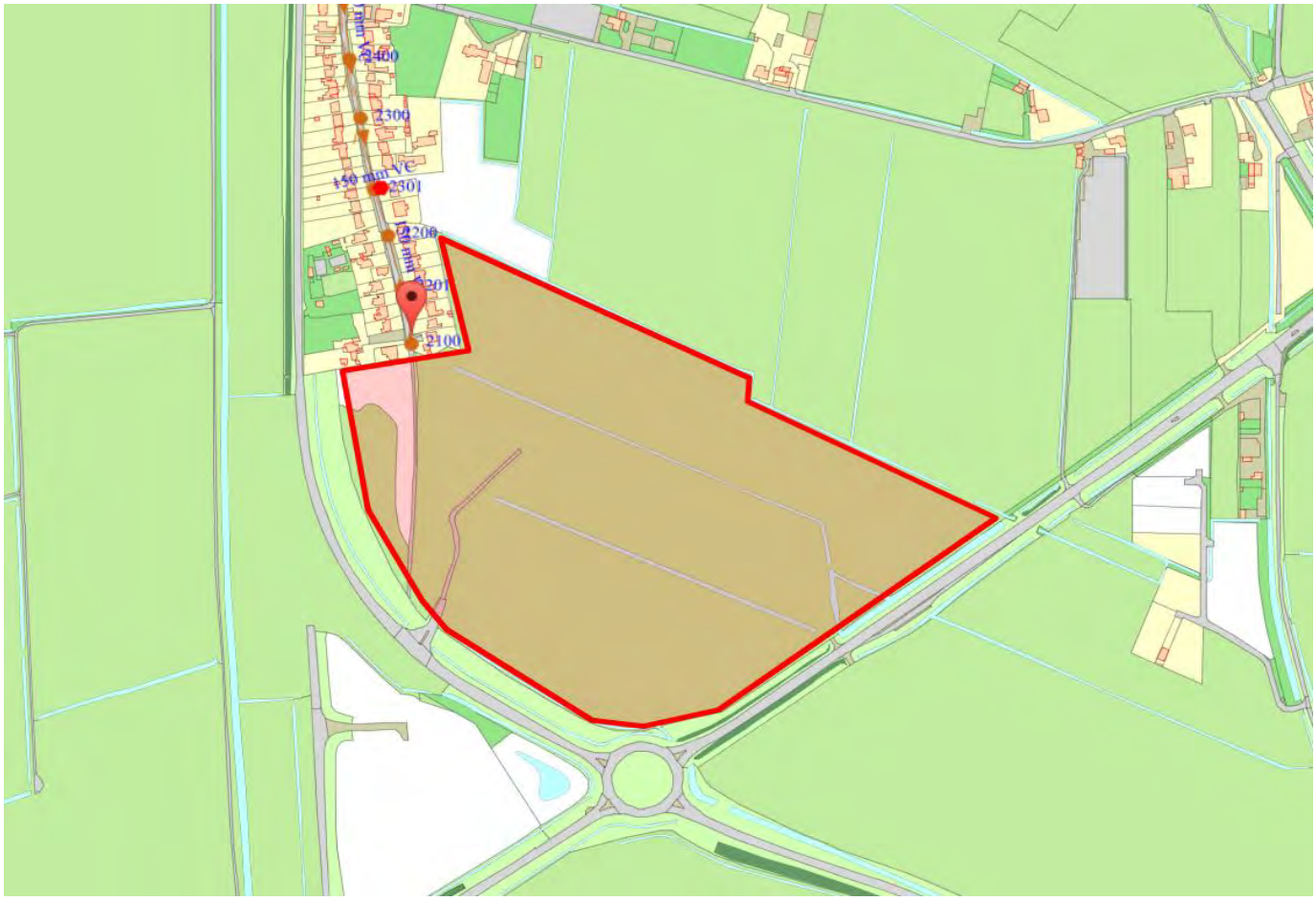


Figure 2: Showing your water recycling foul point of connection

Section 6 - Useful information

Water Industry Act – Key water sections

Section 41:

This provides you with the right to requisition a new water main for domestic purposes to connect your site to the public water network.

Section 45:

This provides you with the right to have a connection for domestic purposes from a building or part of a building to the public water main.

Section 51A - E:

This provides you with the right to provide the water main or service connection yourself and for us to vest them into our company.

Section 55:

This applies where you request a supply of water for non-domestic purposes.

Section 185:

This provides you with the right to make a reasonable request to have a public water main, sewer or public lateral drain removed or altered, at your expense.

Details on how you can make a formal application for a new water main, new connection or diversion are available on from our Development Services team on **0345 60 66 087** or via our website

If you have any other queries on the rights to requisition or connect your housing to the public water and sewerage infrastructure then please contact our Development Services team at:

Anglian Water
PO Box 495
Huntingdon
PE29 6YY

Telephone: 0345 60 66 087
Email: developmentservices@anglianwater.co.uk

Water pressure and flow rate

The water pressure and consistency that we must meet for your site is laid out in the Water Industry Act (1991). This states that we must supply a flow rate of 9 litres per minute at a pressure of 10 metres of head to the external stop tap. If your water pressure requirements exceed this then you will need to provide and maintain any booster requirements to the development site.

Self-lay of water mains

A list of accredited self-lay provider organisations can be found on the Lloyds Registrar website

Water Industry Act – Key used water sections

Section 98:

This provides you with the right to requisition a new public sewer. The new public sewer can be constructed by Anglian Water on your behalf. Alternatively, you can construct the sewer yourself under section 30 of the Anglian Water Authority Act 1977.

Section 102:

This provides you with the right to have an existing sewerage asset vested by us. It is your responsibility to bring the infrastructure to an adoptable condition ahead of the asset being vested.

Section 104:

This provides you with the right to have a design technically vetted and an agreement reached that will see us adopt your assets following their satisfactory construction and connection to the public sewer.

Section 106:

This provides you with the right to have your constructed sewer connected to the public sewer.

Section 185

This provides you with the right to have a public sewerage asset diverted.

Details on how to make a formal application for a new sewer, new connection or diversion are available on our website or via our Development Services team on **0345 60 66 087**.

Sustainable drainage systems

Many existing urban drainage systems can cause problems of flooding, pollution or damage to the environment and are not resilient to climate change in the long term. .

Our preferred method of surface water disposal is through the use of Sustainable Drainage Systems or SuDS.

SuDS are a range of techniques that aim to mimic the way surface water drains in natural systems within urban areas. For more information on SuDS, please visit our website

We recommend that you contact the Local Authority and Lead Local Flood Authority (LLFA) for your site to discuss your application.

Private sewer transfers

Sewers and lateral drains connected to the public sewer on the 1 July 2011 transferred into Water Company ownership on the 1 October 2011. This follows the implementation of the Floods and Water Management Act (FWMA). This included sewers and lateral drains that were subject to an existing Section 104 Adoption Agreement and those that were not. There were exemptions and the main non-transferable assets were as follows:

Surface water sewers and lateral drains that do not discharge to the public sewer, e.g. those that discharged to a watercourse.

Foul sewers and lateral drains that discharged to a privately owned sewage treatment/collection facility.

Pumping stations and rising mains will transfer between 1 October 2011 and 1 October 2016.

The implementation of Section 42 of the FWMA will ensure that future private sewers will not be created. It is anticipated that all new sewer applications will need to have an approved section 104 application ahead of a section 106 connection.

It is anticipated that all new sewer applications will need to have an approved Section104 application ahead of a Section 106 connection

Encroachment

Anglian Water operates a risk based approach to development encroaching close to our used water infrastructure. We assess the issue of encroachment if you are planning to build within 400 metres of a water recycling centre or, within 15 metres to 100 metres of a pumping station. We have more information available on our website

Locating our assets

Maps detailing the location of our water and used water infrastructure including both underground assets and above ground assets such as pumping stations and recycling centres are available from digdat

All requests from members of the public or non-statutory bodies for maps showing the location of our assets will be subject to an appropriate administrative charge.

We have more information on our website

Our charging arrangements and summary for this year's water and used water connection and infrastructure charges can be found on our website

Section 7 - Disclaimer

The information provided in this report is based on data currently held by Anglian Water Services Limited ('Anglian Water') or provided by a third party. Accordingly, the information in this report is provided with no guarantee of accuracy, timeliness, completeness and is without indemnity or warranty of any kind (express or implied).

This report should not be considered in isolation and does not nullify the need for the enquirer to make additional appropriate searches, inspections and enquiries. Anglian Water supports the plan led approach to sustainable development that is set out in the National Planning Policy Framework ('NPPF') and any infrastructure needs identified in this report must be considered in the context of current, adopted and/or emerging local plans. Where local plans are absent, silent or have expired these needs should be considered against the definition of sustainability holistically as set out in the NPPF.

Whilst the information in this report is based on the presumption that proposed development obtains planning permission, nothing in this report confirms that planning permission will be granted or that Anglian Water will be bound to carry out the works/proposals contained within this report.

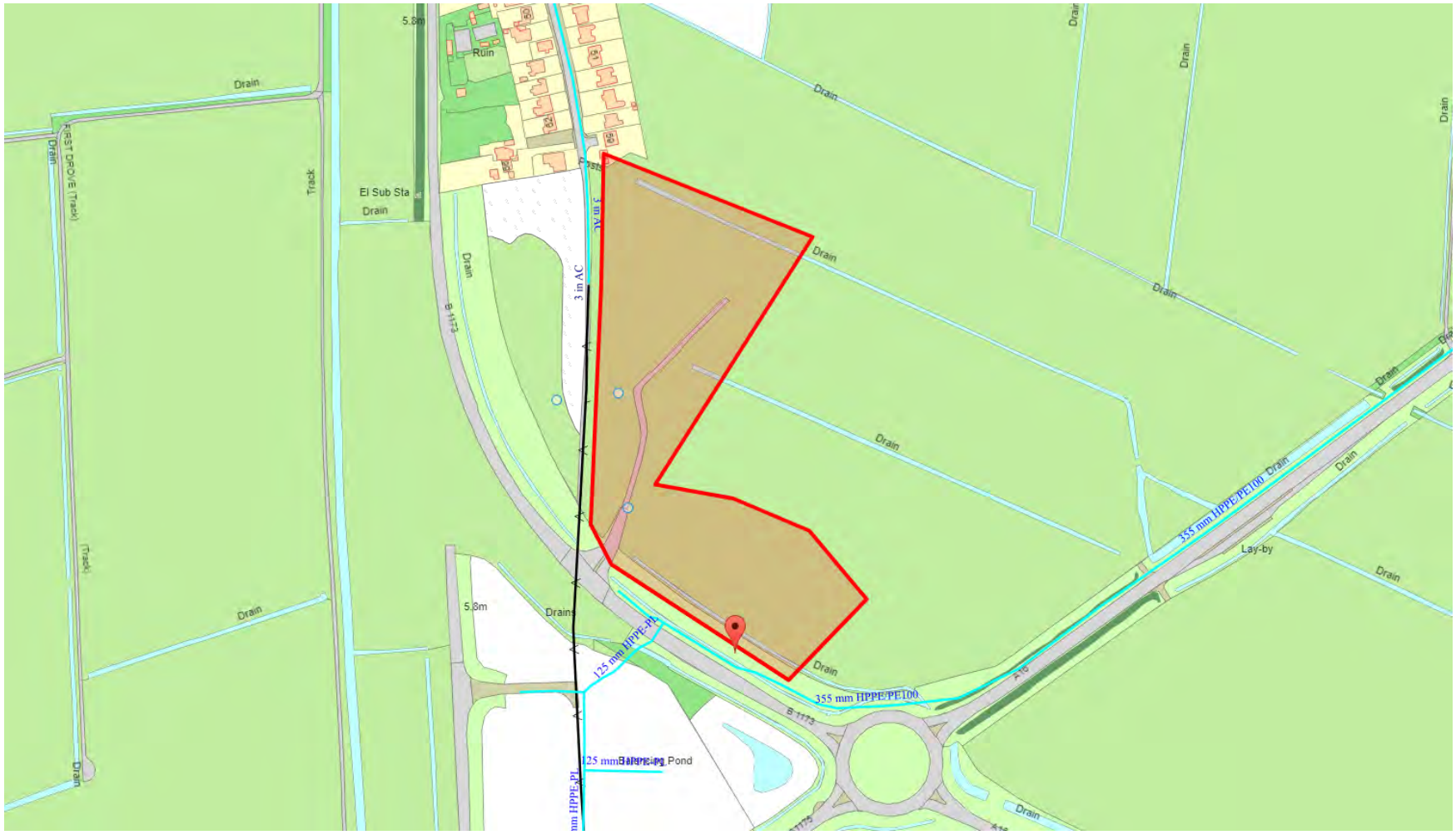
No liability whatsoever, including liability for negligence is accepted by Anglian Water or its partners, employees or agents, for any error or omission, or for the results obtained from the use of this report and/or its content.

Furthermore, in no event will any of those parties be liable to the applicant or any third party for any decision made or action taken as a result of reliance on this report.

This report is valid from the date issued and the enquirer is advised to resubmit their request for an up to date report should there be a delay in submitting any subsequent application for water supply/sewer connection(s). Our pre-planning reports are valid for 12 months, however please note Anglian Water cannot reserve capacity and available capacity in our network can be reduced at any time due to increased requirements from existing businesses and houses as well as from new housing and new commercial developments.

InFlow Ref: PPE-0127928

Water Connection Point: 355mm PE main in B1173 at NGR: TF 24423 19764



Potable Water
Raw Water
Decommissioned Water
Fitting
Hydrant
Please note: Not all fittings are shown on the map

Foul Sewer
Surface Sewer
Combined Sewer
Final Effluent
Rising Main*
Private Sewer*
Decommissioned Sewer*
Outfall*
Inlet*
Manhole*
Sewage Treatment Works
Public Pumping Station
Decommissioned Pumping Station
*Colour denotes effluent type

@ Crown Copyright 2014. All rights reserved.
Ordnance Survey License Number 100022432

InFlow Ref: PPE-0127928

Used Water Connection Point: 150mm diameter sewer at manhole 2100 in Fen End Lane at NGR: TF 24299 20144



Potable Water
Raw Water
Decommissioned Water
Fitting
Hydrant
Please note: Not all fittings are shown on the map

Foul Sewer
Surface Sewer
Combined Sewer
Final Effluent
Rising Main*
Private Sewer*
Decommissioned Sewer*
Outfall*
Inlet*
Manhole*
Sewage Treatment Works
Public Pumping Station
Decommissioned Pumping Station
*Colour denotes effluent type

@ Crown Copyright 2014. All rights reserved.
Ordnance Survey License Number 100022432

Stuart O'Neill
stuart@linconsulting.co.uk

Our ref: CCN-2021-228250

Date: 15 April 2021

Dear Stuart

Provision of Flood Risk Information for Barrier Bank, Spalding.

Thank you for your request to use our flood risk information for the above site. The information is set out below and attached. It is important you read any contextual notes on the maps provided.

If you are preparing a Flood Risk Assessment (FRA) for this site, please note this information may not be sufficient by itself to produce an adequate FRA to demonstrate the development is safe over its lifetime. Additional information may be required to carry out an appropriate assessment of all risk, such as consequence of a breach in defences.

We aim to review our information on a regular basis, so if you are using this data more than twelve months from the date of this letter, please contact us again to check it is still valid.

1. Flood Map

The attached map includes the current Flood Map for your area. The Flood Map indicates the area at risk of flooding, **assuming no flood defences exist**, for a flood with a 0.5% chance of occurring in any year for flooding from the sea, or a 1% chance of occurring for fluvial (river) flooding. It also shows the extent of the Extreme Flood Outline which represents the extent of a flood with a 0.1% chance of occurring in any year, or the highest recorded historic extent if greater.

In some locations, such as around the fens and the large coastal floodplains, showing the area at risk of flooding assuming no defences may give a slightly misleading picture in that if there were no flood defences, water would spread out across these large floodplains. This flooding could cover large areas of land but to relatively shallow depths and could leave pockets of locally slightly higher land as isolated dry islands. It is important to understand the actual risk of the flooding to these dry islands, particularly in the event of defence failure.

The Flood Map also shows the location of formal raised flood defences and flood storage reservoirs. It represents areas at risk of flooding for present day only and does not take account of climate change.

The Flood Map only indicates the extent and likelihood of flooding from rivers or the sea. It should also be remembered flooding may occur from other sources such as surface water sewers, road drainage, etc.

2. Historic Flood Event Outlines

A copy of the Historic Flood Event Outlines Map showing the extent of previous recorded flooding in your area is attached. This only covers information we hold and it is possible recent flooding may have occurred which we are currently investigating, therefore this information may be subject to change. It is possible other flooding may have occurred which other organisations, such as the Lead Local Flood Authority (ie top tier council), Local Authority or Internal Drainage Board (where they exist), may have records.

3. Schemes in the area

There are no ongoing capital projects to reduce or sustain the current flood risk to this site.

4. Fluvial Flood Risk Information

4.1 Fluvial Defence Information

The existing fluvial defences reducing the risk of flooding to this site consist of Crowland-cowbit washes and earth embankments. They are in fair condition and reduce the risk of flooding (at the defence) to a 1% (1 in 100) chance of occurring in any year. We inspect these defences routinely to ensure potential defects are identified.

Refer to paragraph 3.1 for details of any ongoing capital projects to reduce the flood risk to this site.

4.1.1 Details of site – Additional

The proposed red line boundary for the site includes areas designated as FZ1.

This proposed development is adjacent to Barrier Bank. This bank is a designated flood defense, it is essential that there are no adjustments or alterations to the bank at this location without prior consultation and approval (including relevant planning and permitting) from the Environment Agency.

4.2 Fluvial Modelled Levels and Flows

Available modelled fluvial flood levels and flows for the model nodes shown on the attached map are set out in the data table attached. This data is taken from the model named on the data table, which is the most up-to-date model currently available.

Please note these levels are “in-channel” levels and therefore may not represent the flood level on the floodplain, particularly where the channel is embanked or has raised defences.

Our models may not have the most up to date climate change allowances. In time we will update our models for the latest allowances. You should refer to 'Flood risk assessments: climate change allowances' to check if the allowances modelled are appropriate for the type of development you are proposing and its location. You may need to undertake further assessment of future flood risk using different allowances to ensure your assessment of future flood risk is based on best available evidence.

4.3 Fluvial Modelled Flood Extents

Please find attached a map showing available modelled flood extents, taking into account flood defences, for your area. This data is taken from the model named on the map, which is the most up-to-date model currently available.

4.4 Fluvial Hazard Mapping

For certain locations we have carried out modelling to map the maximum values of flood depth, velocity and hazard rating (danger to people) resulting from overtopping and / or breaching of defences at specific locations for a number of scenarios.

At present this information is available for fluvial flood risk in Northampton, Lincoln, Wainfleet and some isolated rural locations.

The number of locations we have this information for is expected to increase in time.

Modelled Hazard Mapping
Detailed Hazard Mapping is available within the 2017 Update of South Holland Strategic Flood Risk Assessment. This can be downloaded via the following link:
http://www.southeastlincslocalplan.org/south-east-lincolnshire-strategic-flood-risk-assessment-march-2017

5. Tidal Flood Risk Information

This site is not considered to be at risk from tidal flooding.

6. Development Planning

If you would like local guidance on preparing a flood risk assessment for a planning application, please contact our Sustainable Places team at lnplanning@environment-agency.gov.uk. It will help if you mention this data request and attach your site location plan.

We provide free preliminary advice; additional/detailed advice, review of draft FRAs and meetings are chargeable at a rate set to cover our costs, currently £100 (plus VAT) per hour of staff time. Further details are available on our website at https://www.gov.uk/guidance/developers-get-environmental-advice-on-your-planning-proposals.

General advice on flood risk assessment for planning applications can be found on GOV.UK at https://www.gov.uk/guidance/flood-risk-assessment-for-planning-applications

Climate change will increase flood risk due to overtopping of defences. Please note, unless specified otherwise, the climate change data included has an allowance for 20% increase in flow. Updated guidance on how climate change could affect flood risk to new development - 'Flood risk assessments: climate change allowances' was published on GOV.UK in February 2016. The appropriate updated climate change allowance should be applied in a Flood Risk Assessment.

You should also consult the Strategic Flood Risk Assessment produced by your local planning authority.

7. Data Licence and Other Supporting Information

We respond to requests for recorded information we hold under the Freedom of Information Act 2000 (FOIA) and the associated Environmental Information Regulations 2004 (EIR).

This information is provided in accordance with the Open Government Licence which can be found here: http://www.nationalarchives.gov.uk/doc/open-government-licence/version/3/

Further information on flood risk can be found on the GOV.UK website at:
https://www.gov.uk/browse/environment-countryside/flooding-extreme-weather

8. Other Flood Risk Management Authorities

The information provided with this letter relates to flood risk from main river or the sea. Additional information may be available from other risk management authorities, such as the Lead Local Flood Authority (ie top tier council) or Internal Drainage Board (where they exist).

I hope we have correctly interpreted your request. If you have any queries or would like to discuss the content of this letter further please contact James Beckett using the email address below.

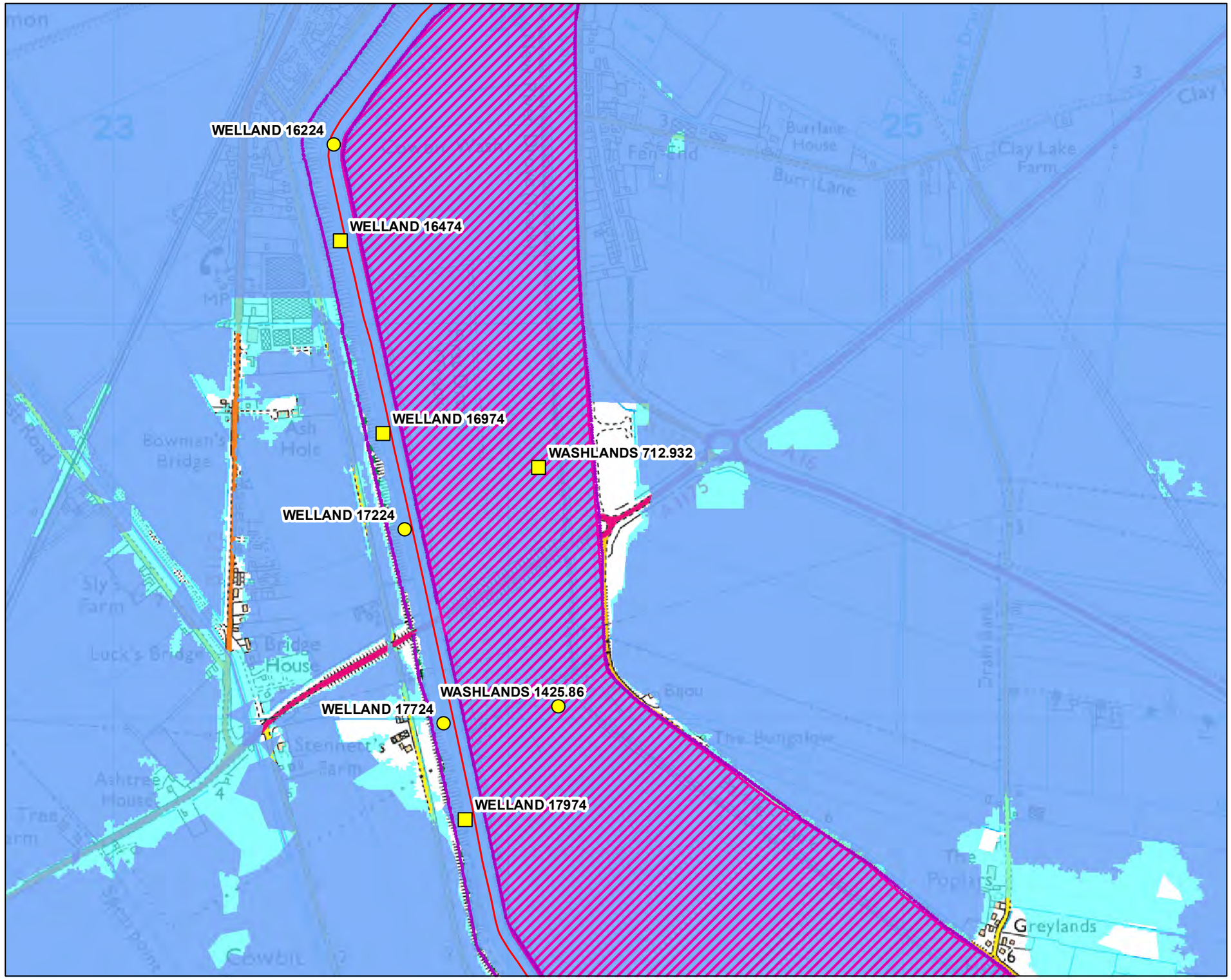
Yours sincerely,



for Alastair Windler
Welland and Nene Partnerships and Strategic Overview Team Leader
e-mail PSOWN@environment-agency.gov.uk

Enc.
Flood Map
Historic Flood Event Outlines Map
Modelled Fluvial Levels and Flows Data Sheet
Modelled Flood Extent Maps

Flood Map centred on TF 24275 19578 - created August 2021 [Ref: CCN-2021-228250]



Environment Agency

Scale 1:10,000

N

Legend

- Modelled Node Levels
- Modelled Node Flows
- Main River
- Raised Defences
- Flood Storage Areas
- Area at Risk of Flooding from Rivers or The Sea
- Extreme Flood Outline

Dark blue shows the area that could be affected by flooding, either from rivers or the sea, if there were no flood defences. This area could be flooded:

- from the sea by a flood that has a 0.5% (1 in 200) or greater chance of happening each year.

- or from a river by a flood that has a 1% (1 in 100) or greater chance of happening each year.

Light blue shows the extent of the Extreme Flood Outline, which represents the extent of a flood event with a 0.1% chance of occurring in any year, or the highest recorded historic extent if greater.

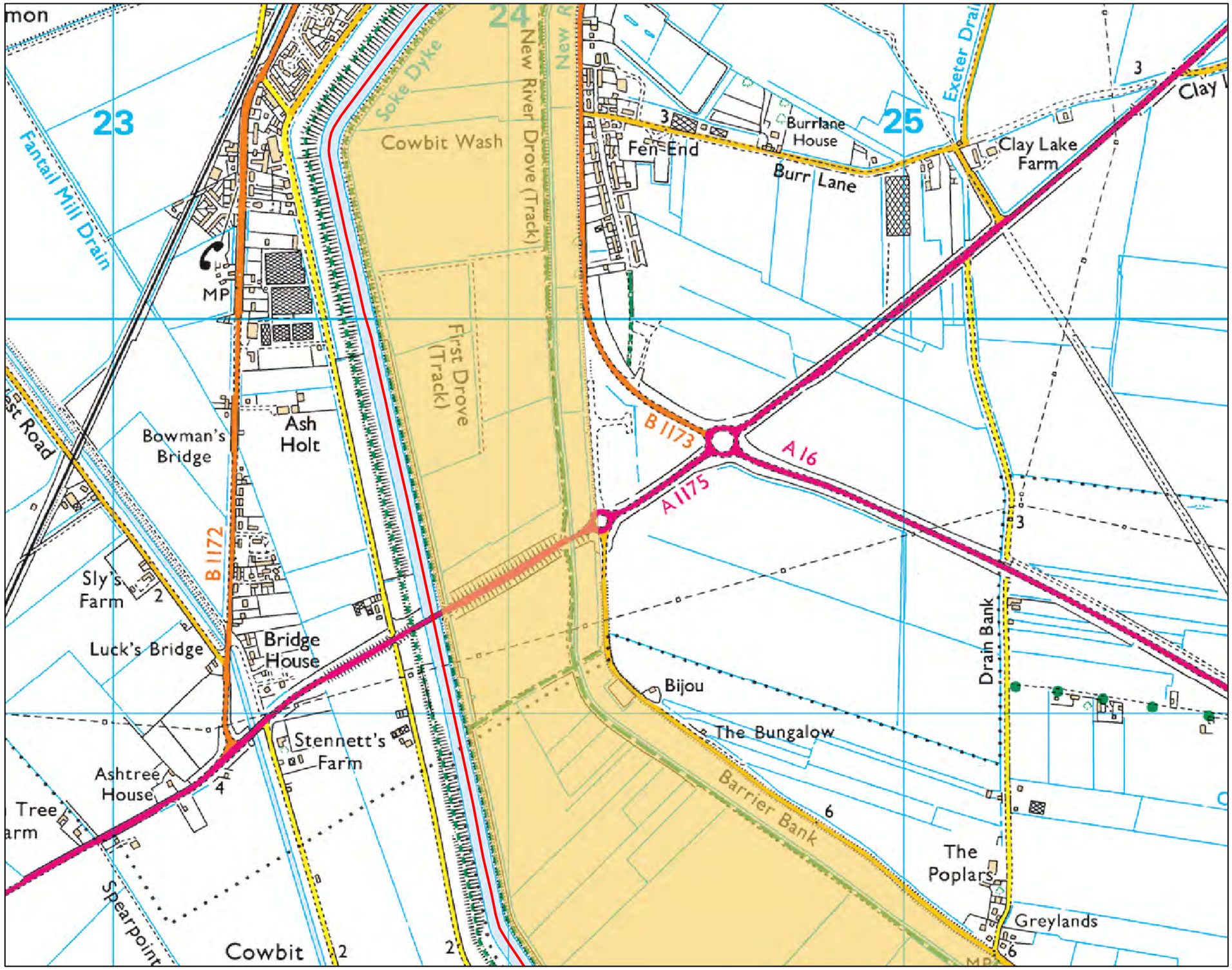
These two colours show the extent of the natural floodplain if there were no flood defences or certain other manmade structures and channel improvements. Sites outside the two extents, but behind raised defences, may be affected by flooding if the defences are overtopped or fail.

Created by the Partnerships and Strategic Overview Team, Kettering

© Environment Agency copyright and / or database rights 2021. All rights reserved. © Crown Copyright and database right. All rights reserved. Environment Agency, 100026380, 2021.

Contact Us: National Customer Contact Centre, PO Box 544, Rotherham, S60 1BY. Tel: 03708 506 506 (Mon-Fri 8-6). Email: enquiries@environment-agency.gov.uk

Historic Flood Map centred on TF 24275 19578 - created August 2021 [Ref: CCN-2021-228250]



Environment Agency

Scale 1:10,000

N

Legend

- Main River
- March 1947 on the River Welland near Cowbit

Created by the Partnership & Strategic Overview Team, Kettering

© Environment Agency copyright and / or database rights 2021. All rights reserved. © Crown Copyright and database right. All rights reserved. Environment Agency, 100026380, 2021.

Contact Us: National Customer Contact Centre, PO Box 544, Rotherham, S60 1BY. Tel: 03708 506 506 (Mon-Fri 8-6). Email: enquiries@environment-agency.gov.uk

Fluvial Flood Levels (mODN)

The fluvial flood levels for the model nodes shown on the attached map are set out in the table below. They are measured in metres above Ordnance Datum Newlyn (mODN).

			Annual Exceedance Probability - Maximum Water Levels (mODN)										
Node Label	**Easting**	**Northing**	**50% (1 in 2)**	**20% (1 in 5)**	**10% (1 in 10)**	**5% (1 in 20)**	**2% (1 in 50)**	**1.33% (1 in 75)**	**1% (1 in 100)**	**1% (1 in 100) inc 20% Climate Change**	**0.5% (1 in 200)**	**0.1% (1 in 1000)**	**0.1% (1 in 1000) inc 20% Climate Change**
WASHLANDS 1425.86	524130	319030	0.86	0.86	0.94	1.66	2.07	2.27	2.35	2.83	2.48	2.71	3.36
WELLAND 16224	523562	320451	3.70	3.98	4.18	4.43	4.52	4.53	4.53	4.66	4.53	4.55	4.66
WELLAND 17224	523742	319477	3.70	4.00	4.20	4.44	4.53	4.54	4.54	4.66	4.54	4.56	4.66
WELLAND 17724	523840	318987	3.70	4.01	4.20	4.45	4.54	4.54	4.55	4.65	4.55	4.56	4.65

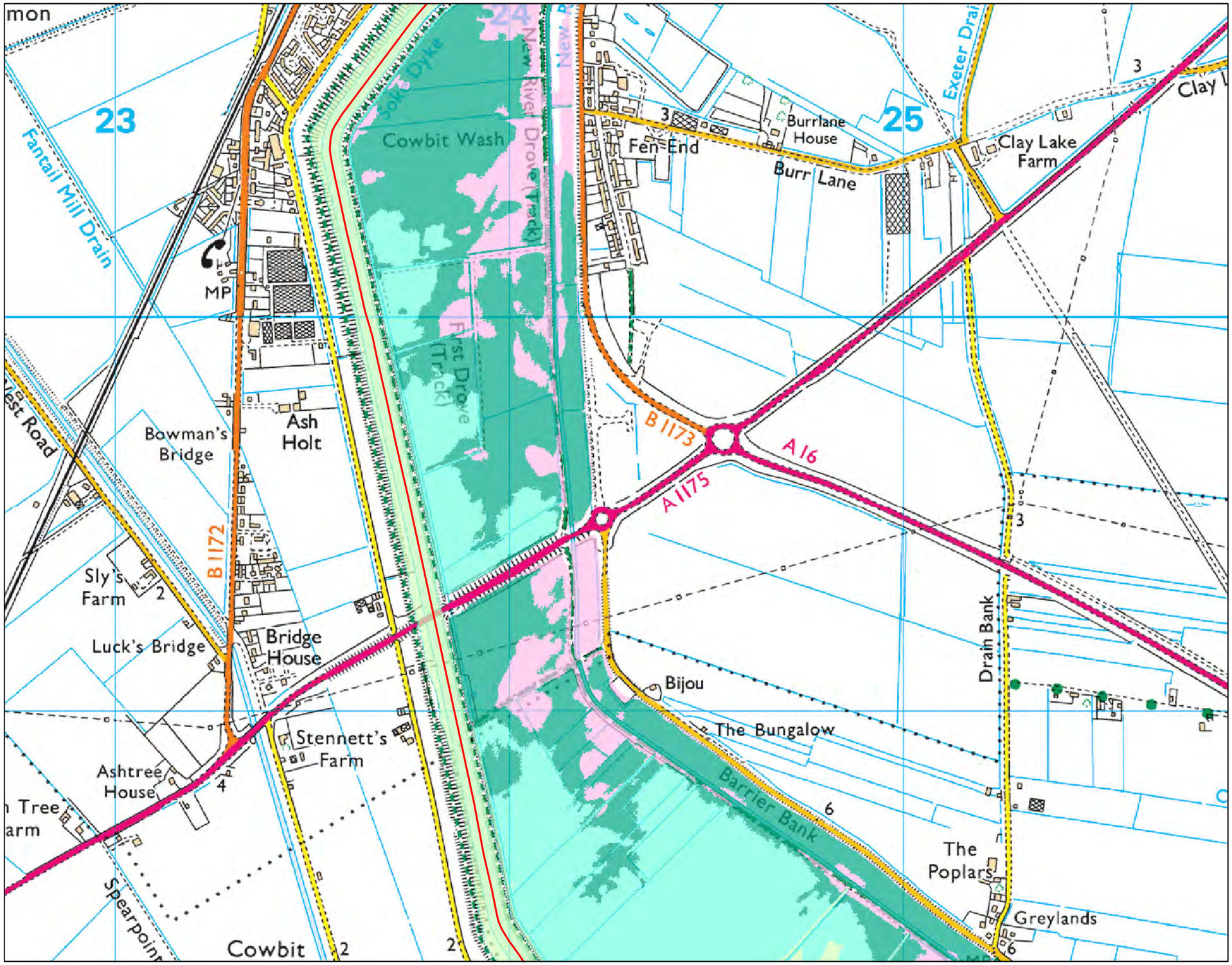
Fluvial Flood Flows (m^3/s)

The fluvial flood flows for the model nodes shown on the attached map are set out in the table below. They are measured in metres cubed per second (m^3/s).

			Annual Exceedance Probability - Maximum Flows (m^3/s)										
Node Label	**Easting**	**Northing**	**50% (1 in 2)**	**20% (1 in 5)**	**10% (1 in 10)**	**5% (1 in 20)**	**2% (1 in 50)**	**1.33% (1 in 75)**	**1% (1 in 100)**	**1% (1 in 100) inc 20% Climate Change**	**0.5% (1 in 200)**	**0.1% (1 in 1000)**	**0.1% (1 in 1000) inc 20% Climate Change**
WASHLANDS 712.932	524080	319635	0.00	0.00	0.00	0.31	0.40	0.69	0.77	4.76	1.21	2.15	8.28
WELLAND 16474	523577	320209	60.03	75.84	86.75	100.18	111.79	112.99	114.34	113.83	114.57	113.66	113.63
WELLAND 16974	523686	319721	59.28	75.10	85.95	99.45	111.74	112.95	114.31	113.94	114.87	113.65	113.62
WELLAND 17974	523893	318743	57.96	73.76	84.47	98.12	111.67	112.88	114.26	114.22	115.46	113.65	113.62

Modelled Flood Extents (with defences)

Map centred on TF 24275 19578 - created August 2021 [Ref: CCN-2021-228250]



Environment Agency

Scale 1:10,000

N W E S

Modelled Flood Extents (with defences)

- Main River
- 5% (1 in 20) Fluvial Event
- 1% (1 in 100) Fluvial Event
- 1% (1 in 100) Fluvial Event inc Climate Change
- 0.1% (1 in 1000) Fluvial Event
- 0.1% (1 in 1000) Fluvial Event inc Climate Change

Created by the Partnerships & Strategic Overview Team, Kettering

© Environment Agency copyright and / or database rights 2021. All rights reserved. © Crown Copyright and database right. All rights reserved. Environment Agency, 100026380, 2021.

Contact Us: National Customer Contact Centre, PO Box 544, Rotherham, S60 1BY. Tel: 03708 506 506 (Mon-Fri 8-6). Email: enquiries@environment-agency.gov.uk

W M Walker
<leeds@arpassociates.co.uk>

Our ref: CCN/2013/2013/33830
Your ref: 800/235/WMWjc
Date: 8 March 2013

Dear W M Walker

Detailed Flood Risk Assessment Data Request for Barrier Bank, Spalding (grid reference number TF246 200).

Thank you for your request of 7 February 2013 to use Environment Agency data, Product 4 in the development of the Flood Risk Assessment for the above site. The information is attached.

If you have requested this information to help inform a development proposal, then you should note the detail in the attached advisory text on the use of Environment Agency Information for Flood Risk Assessments / Flood Consequence Assessments.

Map 1 – Flood Map
A copy of the current Flood Map for the area is enclosed. The Flood Map indicates the area at risk of flooding, assuming no flood defences exist, for a flood event with a 0.5% chance of occurring in any year for flooding from the sea, or a 1% chance of occurring for fluvial (river) flooding. It also shows the extent of the Extreme Flood Outline which represents the extent of a flood event with a 0.1% chance of occurring in any year, or the highest recorded historic extent if greater.

The Flood Map only indicates the extent and likelihood of flooding from rivers or the sea. It should also be remembered that flooding may occur from other sources such as surface water sewers, road drainage, etc.

Map 2 – Historic Flood Extent Map
A copy of the Historic Flood Extent Map for your area is enclosed. This shows the extent of previous recorded flooding in your area, notably 1947. Further information about this event is shown on the attached datasheet.

It is possible that other flooding may have occurred that we do not have records for, and other organisations, such as the Local Authority or Internal Drainage Boards, may have records.

Map 3 – Node Map
Please find attached a map showing a selection of model node points near to your site. The fluvial levels, flows and bank levels for these node points are shown in the attached datasheet. This information is from the Welland Catchment FMI Model (August 2007).

Map 4 – National Flood and Coastal Defence Database (NFCDD) Information
Map 4 shows the location of the fluvial defences protecting this site. This information is obtained from the National Flood and Coastal Defence Database (NFCDD). Further information about these defences is shown on the attached datasheet.

The **fluvial** defences protecting this site consist of earth embankments. They are in good condition and provide protection against a flood event with a 1% chance of occurring in any year (1 in 100). We inspect these defences regularly to ensure that any potential defects are identified early.

Map 5 – Modelled Flood Extents
Please find attached a map showing the results of the Welland Catchment FMI Model (August 2007) for your area. This shows modelled flood extents, taking into account flood defences.

Climate change will increase flood risk due to overtopping of defences. Please contact our Welland and Nene Partnership and Strategic Overview Team to discuss how this risk should be considered within your Flood Risk Assessment.

Land Drainage
The information provided is limited to flood risk from the sea and rivers with catchment areas greater than 3km^2. The site is in an area of extensive land drainage which may pose an additional risk of flooding. Further information should be sought from the South Holland Internal Drainage Board (tel: 01553 819600).

This information is provided subject to the enclosed notice, which you should read.

If you have any queries or would like to discuss the content of this letter further please contact Heather Claase using the telephone/email details below. Please quote our CCN reference number in all correspondence where data is referenced, including the Flood Risk Assessment.

Yours sincerely



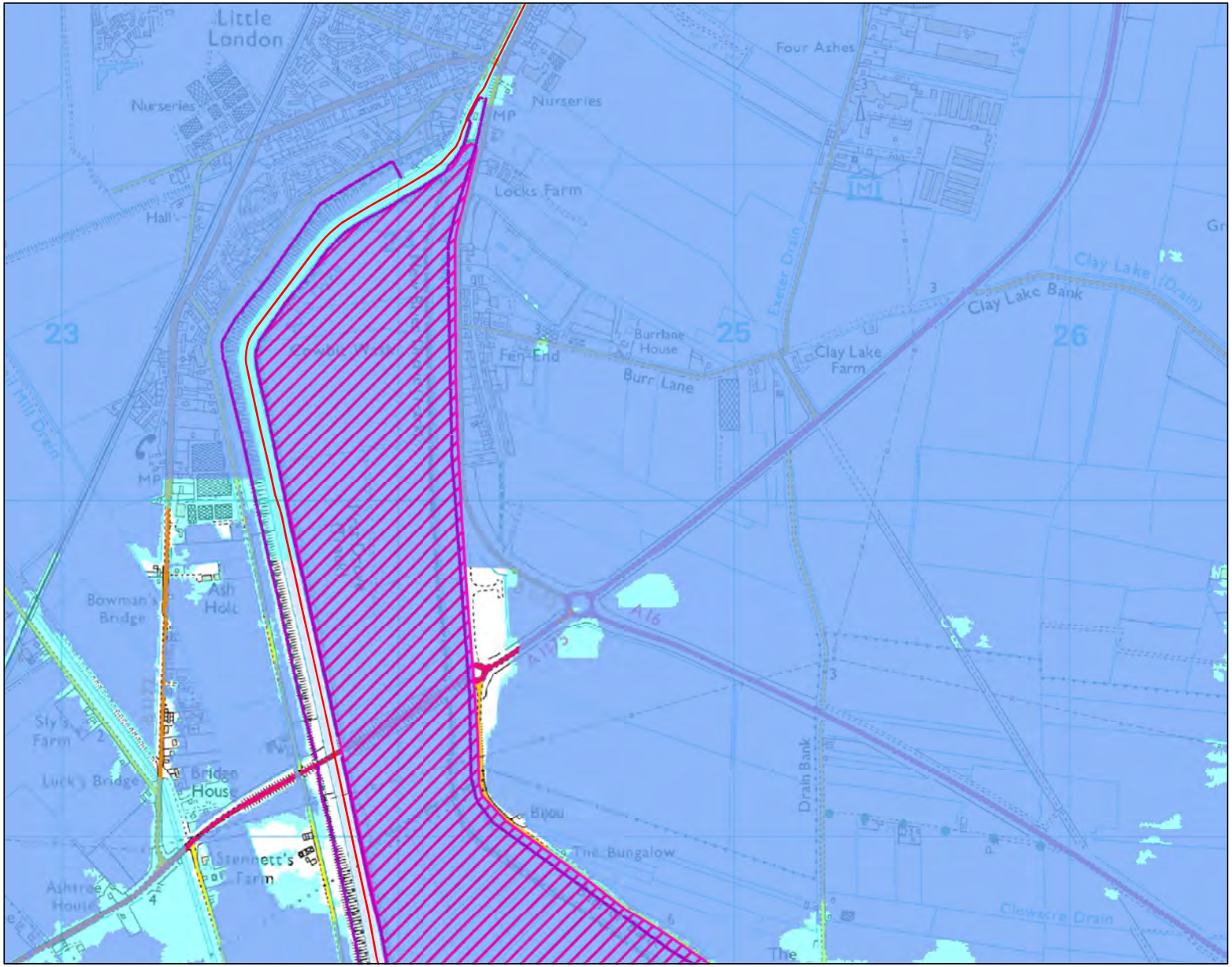
FOR Ben Thornely
Welland and Nene Partnerships and Strategic Overview Team Leader

Direct dial 01536 385126
Direct e-mail psown@environment-agency.gov.uk

Enc.
FRA/FCA Advisory Text
Detailed FRA Maps
Datasheet
Standard Notice

Map 1. Flood Map

Map centred on TF2451919978 - created March 2013 [Ref: CCN-2013-33830]



Environment Agency

Scale 1:11,797

N W E S

- Main River
- Raised Defences
- Flood Storage Areas
- Area at Risk of Flooding from Rivers or The Sea
- Extreme Flood Outline

Dark blue shows the area that could be affected by flooding, either from rivers or the sea, if there were no flood defences. This area could be flooded:

- from the sea by a flood that has a 0.5% (1 in 200) or greater chance of happening each year.

- or from a river by a flood that has a 1% (1 in 100) or greater chance of happening each year.

Light blue shows the extent of the Extreme Flood Outline, which represents the extent of a flood event with a 0.1% chance of occurring in any year, or the highest recorded historic extent if greater.

These two colours show the extent of the natural floodplain if there were no flood defences or certain other manmade structures and channel improvements. Sites outside the two extents, but behind raised defences, may be affected by flooding if the defences are overtopped or fail.

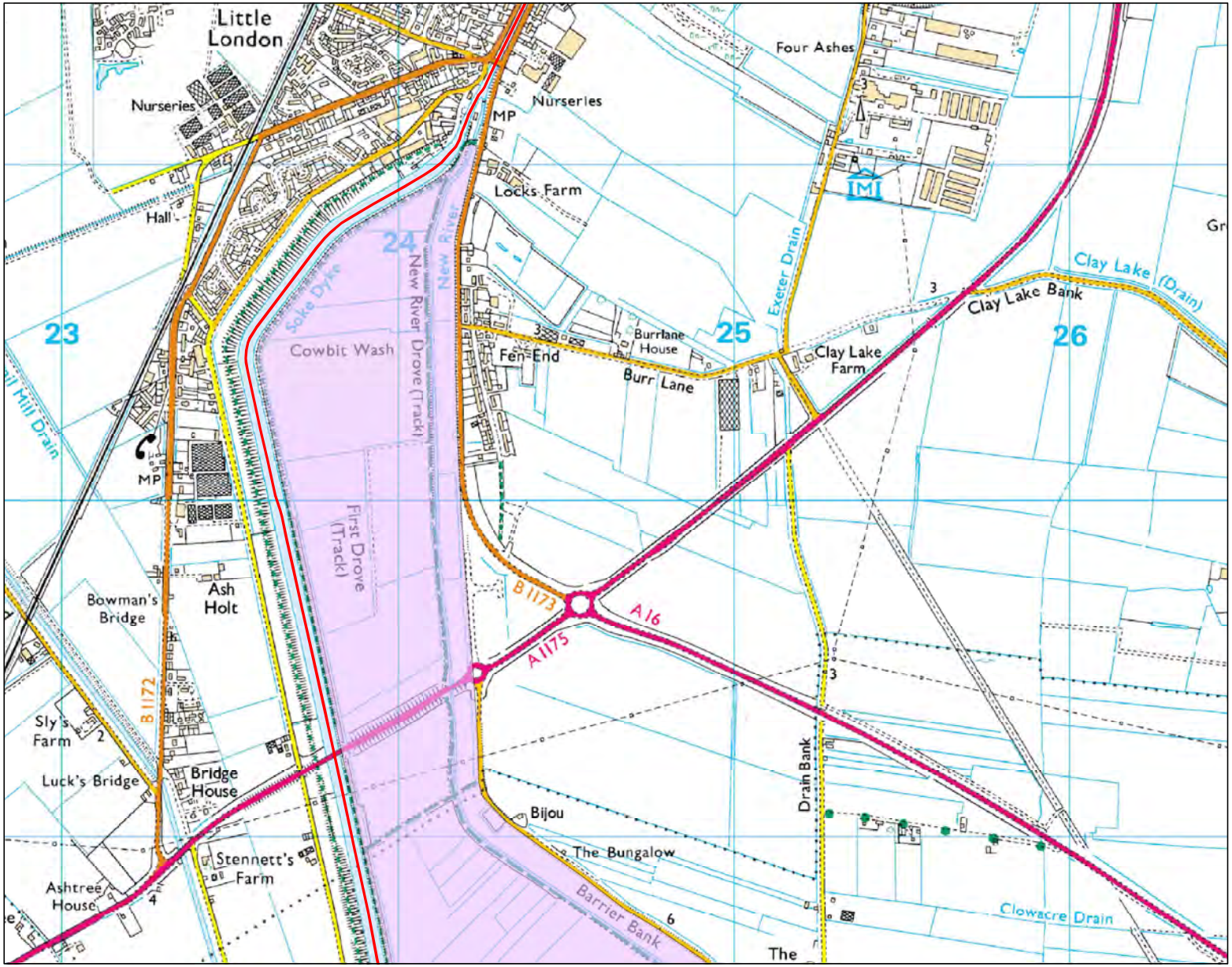
Produced by the Partnerships & Strategic Overview Team, Kettering

© Environment Agency copyright and / or database rights 2013. All rights reserved. © Crown Copyright and database right. All rights reserved. Environment Agency, 100026380, 2013.

Contact Us: National Customer Contact Centre, PO Box 544, Rotherham, S60 1BY. Tel: 03708 506 506 (Mon-Fri 8-6). Email: enquiries@environment-agency.gov.uk

Map 2. Historic Flood Extent Map

Map centred on TF 24519 19978 - created mARCH 2013 [Ref: CCN-2013-33830]



Environment Agency

Scale 1:11,797

N
W E
S

Main River

March 1947 on the River Welland near Cowbit

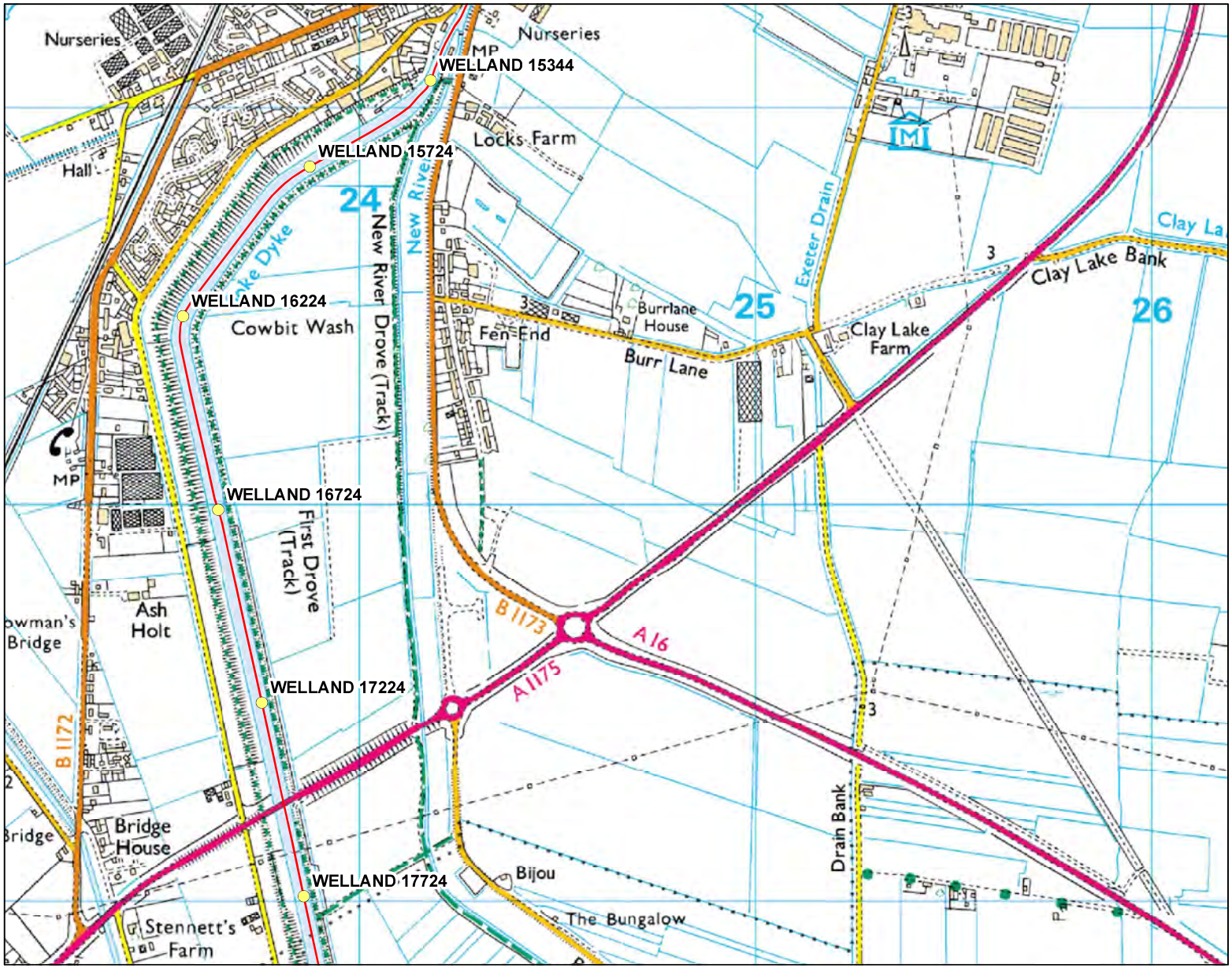
Created by the Partnership & Strategic Overview Team, Kettering

© Environment Agency copyright and / or database rights 2013. All rights reserved. © Crown Copyright and database right. All rights reserved. Environment Agency, 100026380, 2013.

Contact Us: National Customer Contact Centre, PO Box 544, Rotherham, S60 1BY. Tel: 03708 506 506 (Mon-Fri 8-6). Email: enquiries@environment-agency.gov.uk

Map 3. Node Map

Map centred on TF 24598 19998 - created March 2013 [Ref: CCN-2013-33830]



Environment Agency

Scale 1:10,000

N W E S

River Welland Nodes

Main River

Please refer to the attached datasheet for more information

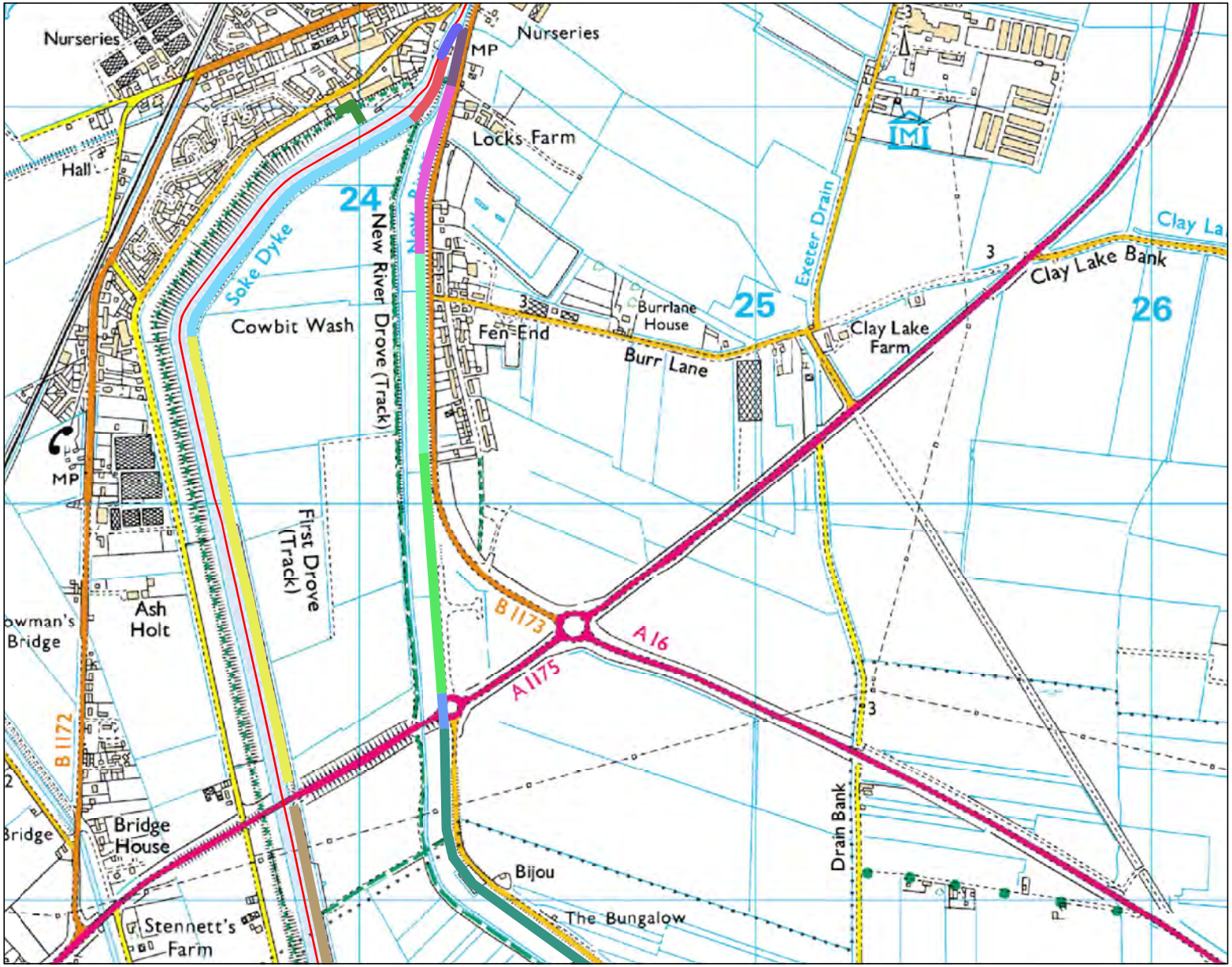
Created by the Partnerships & Strategic Overview Team, Kettering

© Environment Agency copyright and / or database rights 2013. All rights reserved. © Crown Copyright and database right. All rights reserved. Environment Agency, 100026380, 2013.

Contact Us: National Customer Contact Centre, PO Box 544, Rotherham, S60 1BY. Tel: 03708 506 506 (Mon-Fri 8-6). Email: enquiries@environment-agency.gov.uk

Map 4. National Flood and Coastal Defence Database (NFCDD) Information

Map centred on TF 24519 19978 - created March 2013 [Ref: CCN-2013-33830]



Environment Agency

Scale 1:10,000

N W E S

Asset Reference Numbers

- 0553050510301L58
- 0553050510301R52
- 0553050510301R53
- 0553050510301R54
- 0553050510301R55
- 0553050510301R57
- 0553050700101R51
- 0553050700101R52
- 0553050700101R53
- 0553050700101R54
- 0553050700101R55
- 0553050700101R56
- Main River

Please refer to the attached datasheet for more information

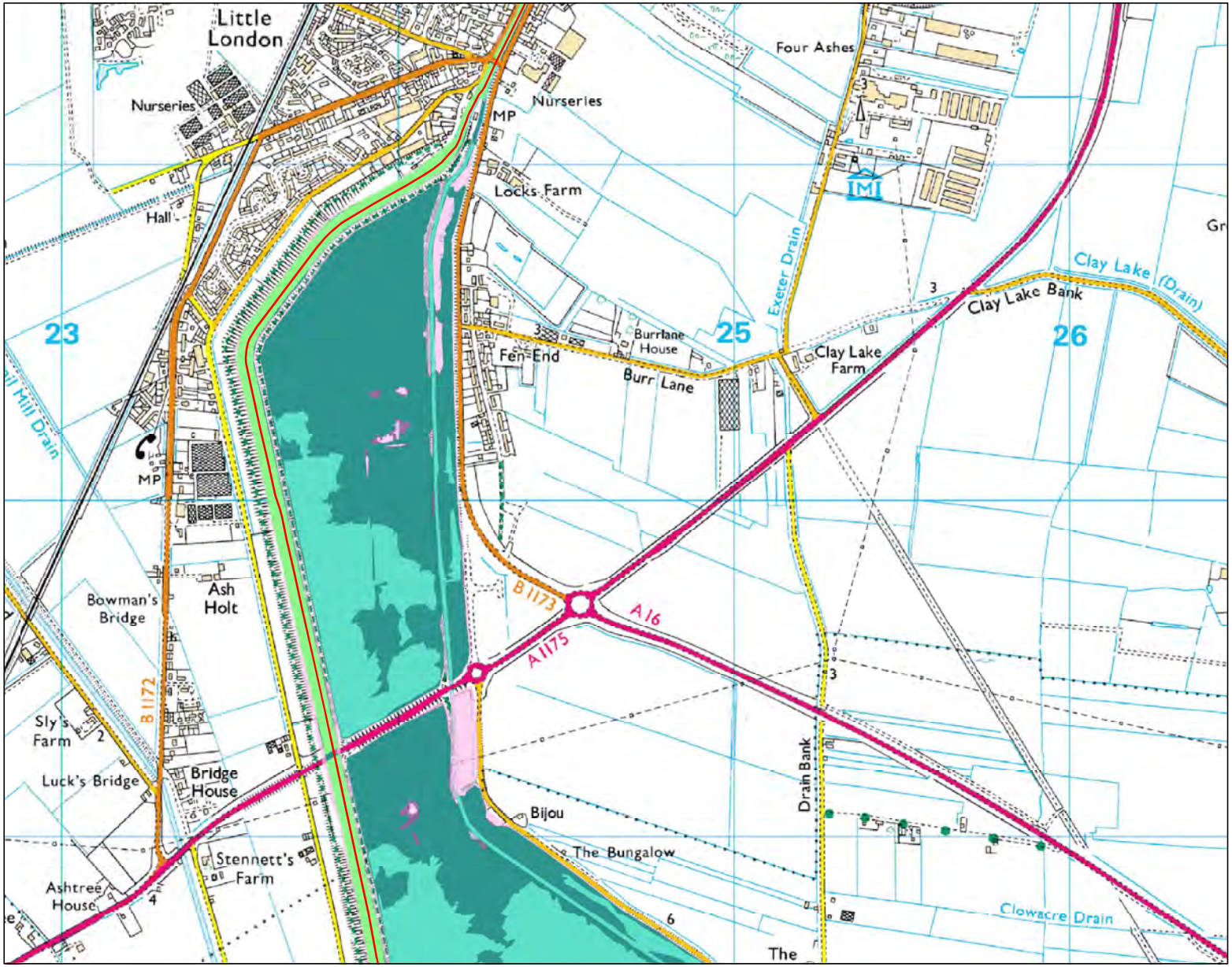
Created by the Partnerships & Strategic Overview Team, Kettering

© Environment Agency copyright and / or database rights 2013. All rights reserved. © Crown Copyright and database right. All rights reserved. Environment Agency, 100026380, 2013.

Contact Us: National Customer Contact Centre, PO Box 544, Rotherham, S60 1BY. Tel: 03708 506 506 (Mon-Fri 8-6). Email: enquiries@environment-agency.gov.uk

Map 5. Modelled Flood Extents (with defences)

Map centred on TF 24519 19978 - created March 2013 [Ref: CCN-2013-33830]



Environment Agency

Scale 1:11,797

N W E S

Modelled Flood Extents (with defences)

- Main River
- 4% (1 in 25) Fluvial Event
- 1% (1 in 100) Fluvial Event
- 1% (1 in 100) inc Climate Change
- 0.1% (1 in 1000) Fluvial Event
- 0.1% (1 in 1000) Fluvial Event inc Climate Change

Created by the Partnerships & Strategic Overview Team, Kettering

© Environment Agency copyright and / or database rights 2013. All rights reserved. © Crown Copyright and database right. All rights reserved. Environment Agency, 100026380, 2013.

Contact Us: National Customer Contact Centre, PO Box 544, Rotherham, S60 1BY. Tel: 03708 506 506 (Mon-Fri 8-6). Email: enquiries@environment-agency.gov.uk

Historic Flooding Information

Flood Event Code	Name	Start Date	End Date	Source of Flooding	Cause of Flooding
EA055194703	March 1947 on the River Welland near Cowbit	16/03/1947	18/03/1947	main river	other

NFCDD Defence Information

Asset Reference	Maintainer	Asset Type	Asset Description	Standard of Protection	Overall Condition
0553050510301R55	Environment Agency	raised defence (man-made)	raised earth embankment	100	2
0553050700101R54	Environment Agency	raised defence (man-made)	Floodbank (End of Houses to Roundabout)	100	2
0553050700101R53	Environment Agency	raised defence (man-made)	Floodbank (Opposite Fen End Road to End of Houses)	100	2
0553050510301R54	Environment Agency	raised defence (man-made)	raised channel embankment	100	2
0553050700101R52	Environment Agency	raised defence (man-made)	Floodbank (Access Bridge to Opposite Fen End Road)	100	2
0553050510301L58	Environment Agency	raised defence (man-made)	earth embankment with stone revetment	100	3
0553050510301R53	Environment Agency	raised defence (man-made)	raised earth embankment	100	2
0553050700101R51	Environment Agency	raised defence (man-made)	Floodbank (Locks Mill to Access Bridge)	100	2
0553050510301R52	Environment Agency	raised defence (man-made)	steel piled channel side	100	2
0553050510301R57	Environment Agency	raised defence (man-made)	Crowland and Cowbit Washes (MA)	100	2
0553050700101R55	Local authority	raised defence (man-made)	Floodbank (A16 - A1073 Roundabout)	100	2
0553050700101R56	Environment Agency	raised defence (man-made)	Floodbank (Roundabout to Cowbit Village)	100	2

Key to Overall Condition Grades

Grade	Rating	Description
1	Very Good	Cosmetic Defects that will have no effect on performance
2	Good	Minor defects that will not reduce the overall performance of the asset
3	Fair	Defects that could reduce performance of the asset
4	Poor	Defects that would significantly reduce the performance of the asset. Further investigation needed.
5	Very Poor	Severe defects resulting in complete performance failure.

Fluvial Flood Levels (mODN)

These levels are "in-channel" levels and therefore may not represent the flood level on the floodplain, particularly where the channel is embanked or has raised defences.

			Annual Exceedance Probability - Maximum Water Levels (mODN)					Defence Crest Levels (mODN)	
Node Label	Easting	Northing	4% (1 in 25)	1% (1 in 100)	1% (1 in 100) inc Climate Change	0.1% (1 in 1000)	0.1% (1 in 1000) inc Climate Change	Left Bank	Right Bank
WELLAND 15344	524181	321070	4.39	4.45	4.67	4.47	4.68	Bank Heights are unavailable at this time (currently under review)	
WELLAND 15724	523876	320852	4.41	4.47	4.67	4.48	4.68		
WELLAND 16224	523556	320474	4.42	4.48	4.67	4.49	4.68		
WELLAND 16724	523645	319986	4.43	4.49	4.67	4.50	4.67		
WELLAND 17224	523755	319499	4.44	4.50	4.67	4.51	4.67		
WELLAND 17724	523861	319010	4.46	4.51	4.67	4.52	4.67		

Modelled Flows (Cumecs)

			Annual Exceedance Probability - Peak Flows (Cumecs)				
Node Label	Easting	Northing	4% (1 in 25)	1% (1 in 100)	1% (1 in 100) inc Climate Change	0.1% (1 in 1000)	0.1% (1 in 1000) inc Climate Change
WELLAND 15344	524181	321070	87.24	90.87	90.59	91.37	91.31
WELLAND 15724	523876	320852	87.26	90.87	90.56	91.35	91.30
WELLAND 16224	523556	320474	87.29	90.87	90.51	91.32	91.29
WELLAND 16724	523645	319986	87.35	90.87	90.47	91.29	91.27
WELLAND 17224	523755	319499	87.40	90.87	90.46	91.36	91.27
WELLAND 17724	523861	319010	87.45	90.87	90.46	91.43	91.26

The flows given are for the node points identified and do not necessarily equate to the total flow down the valley, as there may also be flow along the floodplain.

Source of Information: Welland Catchment FMI (August 2007)

These are the most up-to-date levels and flows currently available. We aim to review our models on a regular basis, so if you are using this information in more than twelve months' time, please contact us again to check that they are still valid.

Standard notice *[not for use with Special Data, Personal Data or unlicensed 3rd party rights]*

Information warning

We (The Environment Agency) do not promise that the Information supplied to You will always be accurate, free from viruses and other malicious or damaging code (if electronic), complete or up to date or that the Information will provide any particular facilities or functions or be suitable for any particular purpose. You must ensure that the Information meets your needs and are entirely responsible for the consequences of using the Information. Please also note any specific information warning or guidance supplied to you.

Permitted use

- The Information is protected by intellectual property rights and whilst you have certain statutory rights which include the right to read the Information, you are granted no additional use rights whatsoever unless you agree to the licence set out below.
- Commercial use of anything except EA OpenData is subject to payment of a £50 licence fee (+VAT) for each person seeking the benefit of the licence, except for use as an Environment Agency contractor or for approved media use.
- To activate this licence you do not need to contact us (unless you need to pay us a Commercial licence fee) but if you make any use in excess of your statutory rights you are deemed to accept the terms below.

Licence

We grant you a worldwide, royalty-free (apart from the £50 licence fee for commercial use), perpetual, non-exclusive licence to use the Information subject to the conditions below.

You are free to:

- copy, publish, distribute and transmit the Information
- adapt the Information
- exploit the Information commercially, for example, by combining it with other Information, or by including it in your own product or application

You must (where you do any of the above):

- acknowledge the source of the Information by including the following attribution statement: *"Contains Environment Agency information © Environment Agency and database right*"
- ensure that you do not use the Information in a way that suggests any official status or that We endorse you or your use of the Information
- ensure that you do not mislead others or misrepresent the Information or its source or use the Information in a way that is detrimental to the environment, including the risk of reduced future enhancement
- ensure that your use of the Information does not breach the Data Protection Act 1998 or the Privacy and Electronic Communications (EC Directive) Regulations 2003

These are important conditions and if you fail to comply with them the rights granted to you under this licence, or any similar licence granted by us will end automatically.

No warranty

The Information is licensed 'as is' and We exclude all representations, warranties, obligations and liabilities in relation to the Information to the maximum extent permitted by law. We are not liable for any errors or omissions in the Information and shall not be liable for any loss, injury or damage of any kind caused by its use. We do not guarantee the continued supply of the Information.

Governing Law

This licence is governed by the laws of England and Wales.

Definitions

"Information" means the information that is protected by copyright or by database right (for example, literary and artistic works, content, data and source code) offered for use under the terms of this licence.

"Commercial" means:

- offering a product or service containing the Information, or any adaptation of it, for a charge, or
- internal use for any purpose, or offering a product or service based on the Information for indirect commercial advantage, by an organisation that is primarily engaged in trade, commerce or a profession.

Our ref: 21_04982_Q

Dear Stuart,

Thank you for your enquiry about flood information in the area of a proposed new development at grid

I've been following-up your enquiry with a search of records at the South Holland offices. It would be ve reference which the Board responded to. I understand from speaking with my colleagues that there we the unconsented infilling of a private watercourse. The watercourse was restored to its open condition

The Board's investigations in the Fen End Lane area have been refreshed recently following receipt of a End Lane experienced severe external flooding in December 2020. The likely cause was a problem with Fen End Lane at grid reference 524329, 320264 and the condition of the open watercourse downstrean

Lincolnshire County Council in its role as Lead Local Flood Authority will hold records of any internal floo https://www.lincolnshire.gov.uk/flood-risk-management/flood-investigations where records are publish

Kind regards,

Philippa

Philippa Noon (BA Hons, MSc, PhD)
Senior Sustainable Development Officer
Water Management Alliance
m: 07733 105048 | dd: 01553 819622 | planning@wlma.org.uk

Please note my working hours are between 08:30 & 17:00 on Monday, Tuesday, Wednesday, Thursday and 08:30 on Friday.

Registered office: Kettlewell House, Austin Fields Industrial Estate, King's Lynn, Norfolk, PE30 1PH
t: 01553 819600 | e: info@wlma.org.uk | www.wlma.org.uk

WMA members: Broads Drainage Board, East Suffolk Drainage Board, King's Lynn Drainage Board, Norfolk Rivers Drainage Board, South Holland Drainage Board, Waveney, Lower Yare and Lothingland IDB in association with Pe and Cuckmere Water Level Management Board

Follow us: Twitter Facebook LinkedIn YouTube

Subject	**RE: Lincs Gateway, Spalding, Lincs**
From	Planning Department <planning@wlma.org.uk>
To	stuart@linconsulting.co.uk <stuart@linconsulting.co.uk>
Copy	James Rigby <James.Rigby@knightsplc.com>
Date	19/04/2023 17:39

Our ref: 23_21812_Q

Good afternoon,
Thank you for your patience. The schematic, below, is helpful. Our collective response is spliced into the text in red below.
Please return to us if you need to discuss any of the comments below. We should be happy to arrange another Teams meeting at a suitable time to review your plans and findings.
Kind regards,
Philippa

Philippa Noon (BA Hons, MSc, PhD, MCIWEM)
Senior Sustainable Development Officer
Water Management Alliance
m: 07733 105048 | dd: 01553 819635 | planning@wlma.org.uk

Please note my working hours are between 08:30 & 17:00 on Monday, Tuesday, Wednesday, Thursday and 08:30 & 16:30 on Friday.

Registered office: Pierpoint House, 28 Horsley's Fields, King's Lynn, Norfolk, PE30 5DD
t: 01553 819600 | e: info@wlma.org.uk | www.wlma.org.uk

WMA members: Broads Drainage Board, East Suffolk Drainage Board, King's Lynn Drainage Board, Norfolk Rivers Drainage Board, South Holland Drainage Board, Waveney, Lower Yare and Lothingland IDB in association with Pevensey and Cuckmere Water Level Management Board

Follow us: Twitter Facebook LinkedIn YouTube

Your feedback is valuable to us, as we continually review and work to improve our services. So, if you have any suggestions, recommendations, questions, compliments or complaints, please complete one of our online forms: Feedback Form | Complaint Form

The information in this e-mail, and any attachments, is confidential and intended solely for the use of the individual or entity to whom it is addressed. The views expressed in this e-mail may not represent those of the Board(s). Nothing in this email message amounts to a contractual or legal commitment unless confirmed by a signed communication. All inbound and outbound emails may be monitored and recorded.
With our commitment to ISO 14001, please consider the environment before printing this e-mail.

From: stuart@linconsulting.co.uk <stuart@linconsulting.co.uk>
Sent: Wednesday, April 12, 2023 9:39 AM
To: Planning Department <planning@wlma.org.uk>
Cc: Philippa Noon <Philippa.Noon@wlma.org.uk>; James Rigby <James.Rigby@knightsplc.com>
Subject: Lincs Gateway, Spalding, Lincs

Good Morning Philippa

Following on from the meeting last week, I have had a visit to the site to have a further walkover and to put together a spec for further investigative works based upon the discussions. I have 'borrowed' the EA map for the area and have marked up several points for the works, with further discussion below. Please could you review and add any comments, further information that you would like us to pick up;



1. Details of ditch (depth/width etc) to the southern end of Fen End Lane, including any pipes originating from the existing houses; Yes, please. We do not have this information.

2. Details of the existing culvert size and shape to determine capacity for existing flows; Yes, please. We do not have this information.

3/4/5. The existing topo indicates pipework crossing the A16, so I am proposing to further elaborate and pick up the pipe the otherside to confirm connectivity and eventually connectivity to point 9 and the watercourse along Drain Bank; We agree that this area needs to be looked at.

6/7/8. Pick up details of the existing northern ditch, including depth and width as well as the connecting pipework originating from Fen End Lane and the size of culvert under the existing field crossing to the eastern end. At points 7/8 we will pick up the A16 crossing; The northern ditch will require a longitudinal and cross-section survey referenced to m AOD. We ask if you are able to confirm if from point 8 northwards, towards the intersection of the A16/Drain Bank North, whether there is any watercourse capable of making a connection into the Board-

maintained watercourse named A01 Clowacre Drain (this runs along the western edge of Drain Bank North. It's part of the pumped catchment so if water can reach Clowacre Drain then a level of protection can be provided by the Board). Could this intersection be marked as point 10 on the map, please?

In addition to above and support any application, can I confirm that you have also asked for the following (again, please add anything that I may have left out);

1. Completion of By-Law relaxation application; Yes, please, for the infilling (Section 23 LDA91).

2. Consent discharges for each of the proposed discharge points; Yes, please, for each discharge point.

3. All outfalls originating from the proposed development are to be surcharged to a level of 1.23m AOD for calculation purposes; 1.23 m AOD is the modelled flood level in the Board's Clowacre Drain to the east. You will need to make an allowance for the additional head loss. The surcharged level at the development site is likely to be higher (perhaps +500mm), so some precautionary assumptions will have to be made re. a worst case scenario level. We do not believe that the existing pipes will be the only restrictors in the drainage system. From our experience, the condition of the watercourses (i.e. in-channel vegetation) has a marked effect in this area, holding-up water and contributing towards flooding.

4. Environmental survey of all affected ditches is required - James Rigby has confirmed that this has already been undertaken; and We should appreciate having sight of this report soonest. In line with the Board's protocol we shall recommend a follow-up survey to be undertaken approximately 1- 2 weeks before the works start date to ensure that there are no water voles on site.

5. You would like the northern ditch modelled. Having had a think about this, I would suggest that the flows within (either) ditch will be restricted by the pipework located at either end of the watercourse + the greenfield run-off from the adjacent fields , neither inlet or outlet likely to exceed to capacity of the ditch, itself, so before we undertake any hydraulic modelling, I just wanted to clarify this point. We will of course, via topo survey, determine the size and depth of ditch and therefore confirm the storage availability is not compromised going forward; The ditch gradient is relevant locally. Bed and water levels will need to be surveyed. This ought also include the watercourse in parallel with the A16 between points 3 and 5 and between point 3 and the intersection west of point 7. The model parameters will require a suitable roughness factor for the open watercourses (note about vegetation above). You will need to demonstrate that neither storage volume nor conveyance will be compromised. The model will need to account for flows which are already being received from the wider hydrological sub-catchment outside the development site boundary as well as any additional flows directed into the northern ditch arising from the development.

6. Ditches at the southern end of the site (new point for map, say point 11). These are likely to be part of the wider drainage system. Would you be able to provide any information about their connectivity, please? We understand that your proposals may involve some use of these watercourses for surface water receipts.

I have taken the time to visit site again, however, given the magnitude and area involved I had to cut short having run out of time! I am therefore keen to keep the survey time to a limit and hopefully target the information precisely!!

If you have any questions then please let me know.

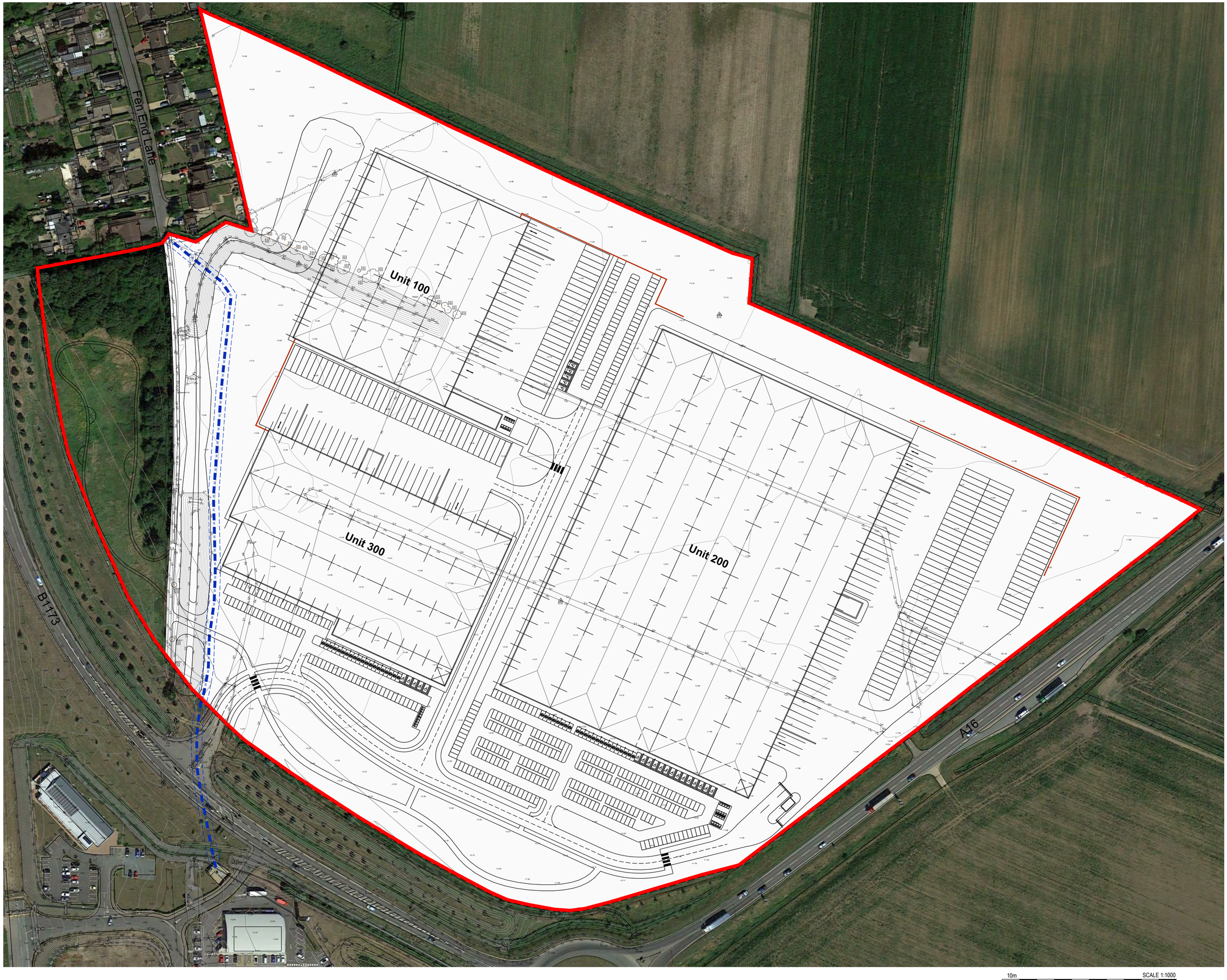
Kind Regards

Stuart O'Neill
BEng (Hons)/PgDip

Tel: 07341 337283

www.linconsulting.co.uk

APPENDIX B: Proposed Site Layout



10m SCALE 1:1000

- Dimensions are in millimeters, unless stated otherwise.
- Scaling of this drawing is not recommended.
- It is the recipients responsibility to print this document to the correct scale.
- All relevant drawings and specifications should be read in conjunction with this drawing.

Schedule of Accommodation

Total GIA	**-**	**673,991 ft²**	**(62,615 m²)**
Site Area	-	46.02 ha	18.62 ha
Site Density GIA	-		33.62%
Unit 100			
Warehouse Area	-	118,776 ft²	(11,035 m²)
Office Area (incl. GF core)	-	6,212 ft²	(577 m²)
Transport Office	-	2,500 ft²	(232 m²)
Unit 100 GIA	**-**	**127,488 ft²**	**(11,844 m²)**
Unit 200			
Warehouse Area	-	374,467 ft²	(34,789 m²)
Office Area (incl. GF core)	-	19,708 ft²	(1,831 m²)
Transport Office	-	2,500 ft²	(232 m²)
Gatehouse	-	300 ft²	(28 m²)
Unit 200 GIA	**-**	**396,975 ft²**	**(36,880 m²)**
Unit 300			
Warehouse Area	-	138,792 ft²	(12,894 m²)
Office Area (incl. GF core)	-	8,236 ft²	(765 m²)
Transport Office	-	2,500 ft²	(232 m²)
Unit 300 GIA	**-**	**149,528 ft²**	**(13,891 m²)**

rev	amendments	by	ckd	date
P.01	Initial Issue	JMB	CA	14.02.23

Lincs Gateway, Spalding, Lincolnshire

Masterplan

Information Container LOD:	LOD 100

Alcan Properties Ltd

umc architects
Newark Beacon, Cafferata Way, Newark, Nottinghamshire NG24 2TN
t. +44 (0)1636 653027 e. info@umcarchitects.com

RIBA PoW Stage:	1 - Preparation & Brief	
Document Suitability:	S1	
Drawn / Checked:	JMB / CA	
Date:	24/03/2023	
Scale:	1:1000	A1
UMC Project Number:	22119	
Document Reference:	Drawing no:	Revision:
22119 - UMC - ZZZZ - SI - DR - A	0010	P02